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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/037,576

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Jeffrey Allen Sturgill

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DINSMORE & SHOHL LLP  
ONE DAYTON CENTRE, ONE SOUTH MAIN STREET  
SUITE 1300  
DAYTON, OH 45402-2023

EXAMINER

KOSLOW, CAROL M

ART UNIT

PAPER NUMBER

1755

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/037,576

Applicant(s)

STURGILL ET AL.

Examiner

C. Melissa Koslow

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-103 is/are pending in the application.
- 4a) Of the above claim(s) 13-35, 42 and 46-103 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 36-41 and 43-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/10/02, 8/29/02, 6/20/03, 6/23/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

10/12/05, 2/27/06,  
4/14/06, 7/13/06,  
8/18/06

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Applicant's election of Group I, the inorganic species and the pigment without an inert medium, claims 1-12, 36-41 and 43-45 in the paper dated 4 January 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 13-35, 42 and 46-103 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse.

EP 675173 and DE 3309194, cited in the information disclosure statement of 10 April 2002, have been considered with respect to the explanation given in the specification. The non-English references cited in the information disclosure statements of 29 August 2002 and 27 February 2006 have been considered with respect to the provided English abstracts. The article in the information disclosure statement of 23 August 2004 has been considered with respect to the relevancy on the IPER.

The disclosure is objected to because of the following informalities:

The serial numbers for the applications discussed on page 1 needs to be supplied.

Appropriate correction is required.

Claim 44 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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This claim teaches the pigment exhibits a color change between cobalt oxidation states, which means between any oxidation state. Pages 9, 11 and 20 teach the color change is between the divalent and trivalent oxidation states. This discrepancy needs to be corrected.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6-8, 36-39 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by applicants' admissions on pages 4 and 17.

Applicants admit trivalent cobalt pigments  $\text{Co}_2\text{O}_3$  and  $\text{Co}_3\text{O}_4$  were known corrosion-inhibiting pigments having a solubility of about  $1 \times 10^{-5}$  mol/L at about  $25^\circ\text{C}$  and about 760 Torr at the time of invention. These pigments are known have a decomposition and melting point above  $100^\circ\text{C}$ , to be colored, to be light fast and the reduction of  $\text{Co}_2\text{O}_3$  to  $\text{CoO}$  exhibits a color change. The valence stabilizer in these pigments is oxygen and  $\text{Co}_3\text{O}_4$  contains  $\text{Co}^{2+}$ , which means is one of the claimed solubility control agents. The claimed pigment is anticipated.

Claims 1-10, 36-39 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 4,564,511.

This reference teaches trivalent cobalt containing  $(\text{NH}_4)_6[\text{Co}_2\text{Mo}_{10}\text{O}_{36}] \cdot 18\text{H}_2\text{O}$ . This compound is a molybdate having ammonium as a solubility control agent. This compound is one of those claims and thus must have the properties of claimed 2-7 and 43-45. The reference teaches the claimed pigment.

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Claims 1-10 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Chemical Abstract Registry citations 100687-47-6 or 246459-53-7.

These citations teach cobalt (III) periodate and iodate. This compound is one of those claims and thus must have the properties of claimed 2-7 and 43-45. The references teach the claimed pigment.

Claims 1-9, 36-39 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 5,188,993.

This reference teaches trivalent cobalt containing  $\text{Li}_{1/2}\text{Co}_{1/2}\text{TiO}_3$ . This compound is one of those claims and thus must have the properties of claimed 2-7 and 43-45. The reference teaches the claimed pigment.

Claims 1-8, 36-39 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 6,582,814.

This reference teaches trivalent cobalt containing  $\text{LaCoO}_3$ . This compound is one of those claims and thus must have the properties of claimed 2-7 and 43-45. The reference teaches the claimed pigment.

Claims 1-8, 36-41 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 6,068,709.

These references teach the anti-corrosion pigment of trivalent cobalt containing  $\text{Na}_3[\text{Co}(\text{NO}_2)_6]$ ,  $[\text{Co}(\text{NH}_3)_6]\text{Cl}_3$ ,  $[\text{CoF}(\text{NH}_3)_5](\text{NO}_3)_2$  and  $[\text{Co}(\text{NO}_3)(\text{NH}_3)_5](\text{NO}_3)_2$ . These compounds meet the requirements of the claims and thus must have the properties of claimed 2-7 and 43-45. The reference teaches the claimed pigment.

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Claims 1-8, 36-39 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 488430.

These references teach the anti-corrosion pigment of trivalent cobalt containing  $\text{Me}_3[\text{Co}(\text{NO}_2)_6]$ , where Me is Na, K and Li,  $\text{Co}_2\text{O}_3$  and  $\text{Co}_3\text{O}_4$ . These compounds meet the requirements of the claims and thus must have the properties of claimed 2-7 and 43-45. The reference teaches the claimed pigment.

Claims 1-11, 36, 37, 40, 41 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 488430.

These references teach the anti-corrosion pigment of trivalent cobalt containing  $[\text{Co}(\text{NH}_3)_6]\text{X}_3$ , where X is Cl, Br,  $\text{NO}_3$ ,  $\text{PO}_4$ ,  $\text{SO}_4$  or  $\text{CO}_3$ ;  $\text{Co}_2\text{O}_3$  and  $\text{Co}_3\text{O}_4$ . These compounds meet the requirements of the claims and thus must have the properties of claimed 2-7 and 43-45. The reference teaches the claimed pigment.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 36-39 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,564,511.

This reference teaches a compound that can have the formula  $(\text{NH}_4)_6[\text{M}_2\text{Mo}_{10}\text{O}_{36}] \cdot 18\text{H}_2\text{O}$ , where M is a mixture of trivalent cobalt and a trivalent metal

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selected from Cr, Fe or Ni. These compounds meet the requirements of the claims and thus must have the properties of claimed 2-7 and 43-45. The reference suggests the claimed pigment.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-12, 36-41 and 43-45 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-5, 7-11, 35-40 and 124 of copending Application No. 10/038,150. Although the conflicting claims are not identical, they are not patentably distinct from each other because the trivalent and/or tetravalent cobalt compound in the copending application claims suggest the trivalent and/or tetravalent cobalt compounds claimed in this application. The compounds in the copending application claims are those claimed and thus would have the properties of claims 43-45.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Claims 1-12, 36-41 and 43-45 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-5, 10-13, 37-42, 123, 135-139, 148, 151 and 152 of copending Application No. 10/038,274. Although the conflicting claims are not identical, they are not patentably distinct from each other because the trivalent and/or tetravalent cobalt compound in the copending application claims suggest the trivalent and/or tetravalent cobalt compounds claimed in this application. The compounds in the copending application claims are those claimed and thus would have the properties of claims 43-45.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk  
March 16, 2007

  
C. Melissa Koslow  
Primary Examiner  
Tech. Center 1700